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| **Job title** | Photonics Engineer |
| **Reports to** | *VP of Research* |

**Job purpose**

The Photonics Engineer will design and test the photonic components in Ommatidia’s next-generation 3D LiDAR and Metrology systems. With a focus on the photonic receiver IC and the massively parallel laser emitter, this team member will improve and extend the current designs to increase the accuracy, resolution, range and speed of Ommatidia’s instruments beyond the state of the art. He/she will be strongly involved in the characterization and testing of the resulting subsystems.

**Duties and responsibilities**

Marketing Tasks

* Produce technical materials for marketing purposes.
* Support marketing team in requirements capture and new product definition.

R&D Tasks

* Analyze operational component requirements and define a top-level architecture.
* Simulate photonic components on standardized integrated optics platforms, including Silicon, Silicon Nitride and Indium Phosphide.
* Carry out a detailed design of photonic circuits to meet operational requirements.
* Layout the masks according to a foundry design kit.
* Build characterization setups for the photonic circuits.
* Characterize photonic components in the corresponding setups.
* Write documentation for internal and external project deliverables.

Quality Activities

* Coordination with Quality department for R&D procedures.
* Produce documentation for QC, customer support, regulatory approvals.

**Qualifications**

Education and experience

* Degree in Electrical Engineering, Computer Science, Physics or equivalent (Master Degree).
* 2-5 years of experience in integrated optics.
* Knowledge of laser physics will be valued.
* Fluent in English (ALTE-4/C1 or better).

Required Skills

* Experience designing photonic integrated circuits.
* Knowledge of BPM and FDTD design & simulation tools.
* Experience working in an optics lab and doing characterization of photonic ICs.
* Excellent Python skills.
* Good analytical skills.
* Adaptable to work in a fast-paced work environment.
* Self-motivated, organized and diligent.

Valued Experience

* Experience with Nazca Design will be valued.
* Knowledge of free-space optics design.
* Knowledge of ISO quality standards and familiarity with quality management.

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| **Approved by:** |  |
| **Date approved:** |  |
| **Reviewed:** |  |